

An Obituary Notice of John W. Draper, M.D., LL.D. By William A. Hammond, M.D., Surgeon General U. S. Army (Retired List).

(Read before the American Philosophical Society, March 3, 1882.)

In the death of Dr. Draper, the American Philosophical Society has to regret the loss of one of its most distinguished members. He died at his residence at Hastings-on-the-Hudson, in the State of New York, on the fourth day of January, 1882, after an illness which had lasted with more or less severity for several months.

John William Draper was born at St. Helen's, England, May 5th, 1811. His early education was received at the Wesleyan School at Woodhouse Grove, and subsequently from private teachers. At a still later period he made especial study of Chemistry, Natural Philosophy and the higher Mathematics, taking high rank in the knowledge of these sciences.

In 1833 he came to the United States, intending to make it his permanent home. Here he seems to have had his attention for the first time turned to the profession of Medicine, for he entered the Medical Department of the University of Pennsylvania and graduated in 1836. He never practised medicine, however; probably he never had a patient. A few months after receiving his diploma, he was appointed Professor of Chemistry, Physiology and Natural Philosophy in Hampden-Sidney College, in Virginia. He occupied this position for about three years, publishing during that period several important essays on chemical and physiological subjects. Some of these appeared in the *American Journal of Medical Sciences*, but the greater number in the *London, Edinburgh and Dublin Philosophical Magazine*.

In 1839 he resigned his professorship at Hampden-Sidney College, to accept that of Chemistry and Natural Philosophy in the newly inaugurated University of the City of New York. In 1841 on the origination of the Medical Department of the University, of which he was one of the founders, he was appointed Professor of Chemistry. In 1850 Physiology was combined with Chemistry and he held the joint chair. The union was continued till 1865, when Dr. Draper gave up the teaching of Chemistry in the Medical Department, continuing, however, to lecture on Physiology. In 1867 he resigned this professorship also, retaining, however, the Presidency of the Medical Faculty, which he had held from 1850. In 1873 he severed his connection altogether with the Medical Department, but continued to the day of his death to hold his professorship in the Department of Arts.

Dr. Draper was, early in his career, an experimenter in various departments of Natural Science. In 1840 he described the figures which are formed when coins are laid on polished glass and which are made visible by exposure to the action of a vapor. About the same time he began to interest himself in the discoveries being made by Daguerre and was the first to photograph the human face.

The chemical action of light was a favorite study with him. In 1844 he published his work on the "Forces which produced the Organization of Plants," in which he showed that the yellow ray of the solar spectrum is the most powerful in its influence over vegetation. One of the most important contributions made by him to science is that in which he demonstrates that all solid substances become incandescent at about the temperature of 977° F.

Dr. Draper did not confine his studies to the Natural Sciences strictly so-called. He was ambitious of distinction as a historian. His basis was, that nations are subject to the same laws as individuals and that in their migrations and stages of development they have been acted upon by purely physical causes. We are inclined to think that he carried his views in this respect, too far, and that he disregarded the undoubted influence of intellectual and emotional factors as creators and modifiers of history.

Dr. Draper's contributions to Scientific Periodicals and the Transactions of Medical Societies have been very numerous. One paper only was presented to the American Philosophical Society, and this was May 27th, 1843. He was elected a member of the Society January 19th, 1844, and consequently this memoir was submitted before he joined us: its title is, "On the Decomposition of Carbonic Acid and the Alkaline Carbonates by the Light of the Sun." It is published in Vol. III of the Proceedings.

His published volumes are as follows:

"A Treatise on the Forces which produce the Organization of Plants," 1844.

"A Text-Book of Chemistry," 1846.

"A Text-Book of Natural Philosophy," 1847.

"A Treatise of Human Physiology," 1856.

"History of the Intellectual Development of Europe," 1862.

"Thoughts on the Future Civil Policy of America," 1865.

"History of the American Civil War," 1867-70.

"History of the Conflict between Religion and Science," 1877.

In all these works Dr. Draper showed that he had read extensively and thought deeply. He had great facility for expressing himself with clearness and directness and hence for impressing his views upon others. Nevertheless it must be confessed, that his chief claim for distinction will rest upon his labors in Chemistry and Natural Philosophy. His "Treatise on Human Physiology" is in many respects fanciful and speculative, and theories are promulgated as well-founded which have no support from facts. His historical works are characterized by an entire absence of references to the sources of his information, and therefore they lost much of the value which they would otherwise possess for students.

In 1876 he was awarded the Rumford Medal by the American Academy of Arts and Sciences, for his researches on Radiant Energy. In 1881 he was elected one of the twelve honorary members of the Physical Society of London.